

Sub A2
What is claimed is:

1. A method for managing physical distribution of products and returnable containers in which first party ships at least one products packed in a returnable container to a second party in response to a request from the second party to ship the at least one product, and the second party sends back the returnable container to the first party, said method comprising:

receiving a request from a second party to ship at least one product;

determining a product inventory balance based on inventory information about said products and the request to ship at least one product, and based on said product inventory balance determination sending a product-shipping notice to the first party; and

determining a returnable container inventory balance based on inventory information about the returnable containers and the received request to ship at least one product, and based on said returnable container inventory balance determination sending a returnable container-returning notice to the second party.

2. The method for managing physical distribution of products and returnable containers as set forth in Claim 1, wherein the first party, the second party and a server for storing inventory information databases of the products and the returnable containers are interconnected via a computer network,

said receiving a request to ship said at least one product comprises transmitting the request from the second party to the server via the computer network,

said determining a product inventory balance comprises calculating the difference between an actual inventory of the products and a desired inventory level of the products based on the request to ship at least one product and the inventory information database of the products;

said sending said product-shipping notice to the first party comprises sending said notice via the computer network when said product inventory balance is below a first predetermined level;

said determining a returnable container inventory balance comprises calculating the difference between an actual inventory of the returnable containers and a desired inventory level of the returnable containers based on the inventory information database of the returnable containers; and

said sending said returnable container-returning notice to the second party comprises sending said notice via the computer network when said returnable container inventory balance is below a second predetermined level;
said method further comprising:

transmitting the request to ship at least one product to the first party via the computer network; and

shipping at least one product packed in the returnable container from the first party to the second party in response to the received request to ship at least one product.

3. The method for managing physical distribution of products and returnable containers as set forth in claim 2, further comprising:

adjusting by the first party said actual inventory of the products to a third predetermined level based on the first party receiving the product-shipping notice so that the actual inventory after the shipment may be at a desired level.

4. The method for managing physical distribution of products and returnable containers as set forth in claim 2, further comprising:

sending by the second party the returnable containers to the first party based on the second party receiving the returnable container-returning notice.

5. The method for managing physical distribution of products and returnable containers as set forth in claim 3, further comprising:

transmitting to the server via the computer network data indicating a number of products shipped from the first party, and

renewing the inventory information database of the products on the server based on the number of shipped products received by the second party.

6. The method for managing physical distribution of products and returnable containers as set forth in claim 4, further comprising:

transmitting to the server via the computer network data indicating the number of returnable containers returned from the second, and

renewing the inventory information database of the returnable containers on the server based on a number of returnable containers returned to the first party.

7. A system for managing physical distribution of products and returnable containers in which a first party ships at least one product packed in a returnable container to a second party upon a request of the second party to ship the products,

and the second party sends back a number of the returnable containers to the first party, said system comprising;

a second party information-collecting section for receiving the request to ship at least one product and data indicating the number of the returnable containers returned from the second party;

a first party information-collecting section for receiving data indicating the number of the products shipped from the first party;

a product information-transmitting section for sending to the first party a product-shipping notice and the request to ship at least one product;

a returnable container information-transmitting section for sending to the second party a returnable container-returning notice;

an inventory information database-managing section for updating the inventory information databases of the at least one product and the returnable containers based on the received second party information and first party information; and

an inventory data-analyzing section for calculating the difference between actual inventories of the at least one product and the returnable containers and desired inventory levels of the at least one product and returnable containers, respectively, based on the inventory information databases of the products and the returnable containers, respectively, and for generating at least one of the product-shipping notice and the returnable container-returning notice when at least one of the products and the returnable containers actual inventories is below a predetermined value.

8. The system for managing physical distribution of products and returnable containers as set forth in Claim 7, further comprising;

a second party information-inputting section for inputting second party information including the request to ship at least one product and data indicating the number of the returned returnable containers;

a second party information-transmitting section for sending the input second party information to said second party information-collecting section;

a returnable container-returning notice-receiving section for receiving said sent returnable container-returning notice; and

a returnable container-returning notice-displaying section for displaying said sent returnable container-returning notice.

9. The system for managing physical distribution of products and returnable containers as set forth in Claim 7, further comprising;

a first party information-inputting section for inputting first party information including the number of the shipped at least one product;

a first party information-transmitting section for sending the input first party information to said first party information-collecting section;

a product-shipping notice-receiving section for receiving said sent product-shipping notice; and

a product-shipping notice-displaying section for displaying said sent product-shipping notice.

10. A system for managing physical distribution of products and returnable containers in which a first party sends products packed in returnable containers to a second party upon a request of the second party to ship the products and the second party sends back the returnable containers of the received products to the first party, said system comprising;

a server having inventory information databases of the products and the returnable containers;

at least one first party terminal; and

at least one second party terminal,

wherein said server, first party terminal and second party terminal are interconnected via a computer network, and said server is programmed to perform the steps of;

calculating the difference between an actual inventory of the products and a desired inventory level based on the request to ship at least one product and the inventory information database of the products;

sending a product-shipping notice to the first party via the computer network when the actual inventory of the at least one product is found to be below a first predetermined level;

calculating the difference between the actual inventory of the returnable containers and the desired inventory level based on the request to ship at least one product and the inventory information database of the returnable containers; and

sending said returnable container-returning notice to the second party via the computer network when the actual inventory of the returnable containers is found to

be below a second predetermined level.

11. The system for managing physical distribution of products and returnable containers as set forth in Claim 10, wherein said first party terminal is programmed to display a notice urging the first party to make available the products upon receiving said product-shipping notice.

12. The system for managing physical distribution of products and returnable containers as set forth in Claim 10, wherein said second party terminal is programmed to display a notice urging the first party to send back the returnable container to the first party upon receiving said returnable container-returning notice.

13. The system for managing physical distribution of products and returnable containers as set forth in Claim 10, wherein said second party terminal is programmed to transmit data input by the second party to the server indicating a number of the returned returnable containers, said first party terminal is programmed to transmit the data indicating a number of the shipped products input by the first party, and the server is programmed to renew the inventory information databases of the products and the returnable containers based on the received number of the returned returnable containers and the shipped products.

14. The system for managing physical distribution of products and returnable containers as set forth in Claim 10, wherein said computer network is Internet.